

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

Claims 1 to 12. Cancelled.

13(Currently Amended). A chimeric adenovirus comprising a hexon protein of an adenovirus serotype which is incapable of efficient growth in a selected host cell selected from the group consisting of C1, Pan6, and Ad40, said ~~modified~~ chimeric adenovirus comprising:

(a) adenovirus sequences of the left terminal end of the genome of a first adenovirus which grows in a selected host cell type, said left end region comprising the E1a, E1b and 5' inverted terminal repeat (ITRs);

(b) adenovirus sequences of the internal region of the genome of the selected adenovirus serotype which is incapable of efficient growth in the selected host cell, said internal region comprising the genes encoding the penton, hexon and fiber of the selected adenovirus;

(c) adenovirus sequences of the right terminal end of the genome of the first adenovirus, said right end region comprising the necessary E4 gene functions and the 3' inverted terminal repeats (ITRs),

wherein the resulting chimeric adenovirus comprises adenoviral structural and regulatory proteins necessary for infection and replication.

14 (Original). The chimeric adenovirus according to claim 13, wherein the chimeric adenovirus further comprises the IIIa, 52/55kDa and terminal protein (pTP) of the selected adenovirus serotype.

15 (Original). The chimeric adenovirus according to claim 13, wherein chimeric adenovirus comprises the polymerase of the first adenovirus.

16 (Original). The chimeric adenovirus according to claim 13, wherein the chimeric adenovirus expresses a functional chimeric protein formed from the first adenovirus and the selected adenovirus, said chimeric protein is selected from the group consisting of polymerase, terminal protein, 52/55 kDa protein, and IIIa.

17 (Original). The chimeric adenovirus according to claim 13, wherein the chimeric adenovirus comprises the terminal protein, 52/55 kDa, and/or IIIa of the selected adenovirus.

18 (Currently Amended). An isolated host cell comprising a chimeric adenovirus according to claim 12 ~~12~~ 13.

19 (Currently Amended). ~~The~~ An isolated host cell according to claim 18, wherein said isolated host cell is a human cell.

Claims 20 to 37. Cancelled.

38 (Previously Presented). A composition comprising a virus according to claim 13 in a pharmaceutically acceptable carrier.

39 (Previously Presented). A method for delivering a heterologous gene to a mammalian cell comprising introducing into said cell an effective amount of the virus according to claim 13.

Claim 40. Cancelled.

41 (Previously Presented). A method for producing a selected gene product comprising infecting a mammalian cell with the virus according to claim 44, culturing said cell under suitable conditions and recovering from said cell culture the expressed gene product.

Claim 42 to 43. Cancelled.

44 (Currently Amended). A chimeric adenovirus comprising a hexon protein of a C1 adenovirus, said chimeric adenovirus comprising:

(a) adenovirus sequences of the left terminal end of the genome of a first adenovirus which grows in a selected host cell type, said left end region comprising the E1a, E1b and 5' inverted terminal repeat (ITRs);

(b) adenovirus sequences of the internal region of the genome of the C1 adenovirus, said internal region comprising the genes encoding the penton, hexon and fiber of the C1 adenovirus;

(c) adenovirus sequences of the right terminal end of the genome of the first adenovirus, said right end region comprising the necessary E4 gene functions and the 3' inverted terminal repeat (ITRs),

wherein the resulting chimeric adenovirus comprises adenoviral structural and regulatory proteins necessary for infection and replication.

45 (Previously Presented). The chimeric adenovirus according to claim 44, wherein the chimeric adenovirus further comprises the IIIa, 52/55 kDa and terminal protein (pTP) of the C1 adenovirus serotype.

46 (Previously Presented). The chimeric adenovirus according to claim 44, wherein chimeric adenovirus comprises the polymerase of the first adenovirus.

47 (Previously Presented). The chimeric adenovirus according to claim 44, wherein the chimeric adenovirus expresses a functional chimeric protein formed from the first adenovirus and the C1 adenovirus, said chimeric protein is selected from the group consisting of polymerase, terminal protein, 52/55 kDa protein, and IIIa.

48 (Previously Presented). The chimeric adenovirus according to claim 44, wherein the chimeric adenovirus comprises the terminal protein, 52/55 kDa, and/or IIIa of the C1 adenovirus.

49 (Currently Amended). An isolated host cell comprising a chimeric adenovirus according to claim 44.

50 (Currently Amended). ~~The~~ An isolated host cell according to claim 49, wherein said isolated host cell is a human cell in culture.

51 (Previously Presented). The chimeric adenovirus according to claim 44, wherein first adenovirus is selected from the group consisting of human adenovirus type 5 and Pan5.

52 (Previously Presented). A composition comprising a virus according to claim 44 in a pharmaceutically acceptable carrier.

53 (Previously Presented). A method for delivering a heterologous gene to a mammalian cell comprising introducing into said cell an effective amount of the virus according to claim 44, wherein said virus comprises the heterologous gene under the control of sequences which direct expression thereof in the cell.